Claims

1. Method for routing data packets with a destination address in a packet-switching data network, in which a first and second transmission path are assigned respective traffic distribution weightings in a routing table for individual destination addresses that is assigned to a network node, said weightings indicating the respective traffic load allocated to each transmission path,
characterized in that
in each case the maximum traffic distribution weighting is assigned to the first transmission path and the minimum traffic distribution weighting is assigned to the second transmission path such that during undisturbed operation data packets are routed via the first transmission path and, if said path is interrupted, the packets are routed via the second transmission path.

2. Method according to claim 1,
characterized in that
in the event of failure of the first transmission path, the second transmission path is given the maximum traffic distribution weighting.

3. Method according to claim 1 or claim 2,
characterized in that
in the event of failure of the first transmission path, a third transmission path is calculated, which is given the minimum traffic distribution weighting.

4. Method for routing data packets with a destination address in a packet-switching data network, in which at least a first, a second and a further transmission path are assigned

respective traffic distribution weightings in a routing table for individual destination addresses that is assigned to a network node, said weightings indicating the respective traffic load allocated to each transmission path,
characterized in that
the maximum traffic distribution weighting is assigned to the first transmission path and the minimum traffic distribution weighting is assigned to the second and to the further transmission paths respectively such that during undisturbed operation data packets are routed via the first transmission path and, if said path is interrupted, the packets are routed via at least one of the other transmission paths.

5. Method according to claim 4,
characterized in that
in the event of failure of the first transmission path, at least one other transmission path is given a traffic distribution weighting that deviates from the minimum traffic distribution weighting.

6. Method according to claim 4 or claim 5,
characterized in that
in the event of failure of the first transmission path, at least one additional transmission path is calculated that is given the minimum traffic distribution weighting.

7. Method for routing data packets with a destination address in a packet-switching data network, in which at least a first and a second transmission paths and at least one further transmission path are assigned respective traffic distribution weightings in a routing table for individual destination addresses that is assigned to a network node, said weightings indicating the respective traffic load allocated to each

transmission path,
characterized in that
the minimum traffic distribution weighting is assigned to at least one transmission path of at least one destination address and in that this transmission path is used for the transmission of data packets only in the event of failure of at least a part of all the other transmission paths for this destination address.

8. Method according to claim 7,
characterized in that
in the event of failure of at least a part of the transmission paths with values that deviate from the minimum traffic distribution weighting, the at least one transmission path with a minimum traffic distribution weighting is given a traffic distribution weighting that deviates from said minimum weighting.

9. Method according to claim 7 or claim 8,
characterized in that
in the event of failure of at least a part of the transmission paths with values that deviate from the minimum traffic distribution weighting, at least one further transmission path is calculated that is given the minimum traffic distribution weighting.

10. Method according to any one of the preceding claims,
characterized in that
a network node is controlled such that the transmission path on which a network node receives a data packet is blocked for the return transmission of the same data packet.

11. Method according to any one of the preceding claims,

characterized in that
a multipath routing method is applied in the packet-switching data network.

12. Method according to any one of the preceding claims, characterized in that
a network operated in conformance with the Internet Protocol is used as the packet-switching data network.

13. Method according to any one of the preceding claims, characterized in that
at least the failure of the first transmission path of a network node is communicated to at least one further network node.

14. Method according to claim 13,
characterized in that
the transmission is effected by means of a protocol.

15. Method according to claim 13 or claim 14,
characterized in that
a recalculation of at least one transmission path of at least one destination address is carried out in at least one further network node.

16. Method according to any one of the preceding claims, characterized in that
at least one further traffic distribution weighting is assigned to the transmission paths with a minimum traffic distribution weighting entered in the routing table, said further traffic distribution weighting being used if a transmission path is interrupted.

17. Method according to claim 16,
characterized in that
a transmission path is assigned respectively to the further traffic distribution weightings entered in the routing table and this traffic distribution weighting is used in the event of failure of the assigned transmission path.

18. Network node for a packet-switching data network, said network node having a routing table for entering destination addresses to which transmission paths and traffic distribution weightings are assigned, whereby at least two paths are provided per destination address,
characterized in that
the routing table is structured in a manner such that the minimum traffic distribution weighting is assigned to at least one transmission path for a destination address and at least one other transmission path has a traffic distribution weighting that deviates from the minimum traffic distribution weighting and in that the router can be controlled such that in the event of interruption of at least one part of the paths with a traffic distribution weighting that deviates from the minimum traffic distribution weighting, the transmission of at least one part of the packets is effected via the path with the minimum traffic distribution weighting.